

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A constant velocity joint comprising:

a hollow housing having an opening at one end, an inner face of the housing being provided with three guide grooves extending in [[a]] an axial direction of the housing and being spaced apart equally in a circumferential direction, each groove having a pair of side faces opposed to each other, extending in the axial direction, and a bottom portion connecting the side faces;

a tripod having three trunnions positioned in the grooves of the housing with each of the trunnions extending radially along a trunnion axis, the trunnions being spaced apart equally in a circumferential direction and having end portions defining partially spherical outer surfaces with a trunnion centerline passing through a center of each of the end portions wherein the trunnion centerline is perpendicular to the trunnion axis;

inner rollers mounted to the end portions of respective trunnions with each of the inner rollers having a partially spherical inner face ^{D (13.4)} defining an inner diameter and a cylindrical outer surface, the inner face of the inner rollers cooperating with the outer surfaces of the trunnions such that the inner rollers may pivot freely on the respective outer surfaces of the trunnions;

outer rollers mounted to respective outer surfaces of the inner rollers through needle bearings, the outer rollers having cylindrical inner surfaces and spherical outer faces, the cylindrical inner surfaces of the outer rollers mating with the respective cylindrical outer surfaces of the inner rollers ^(12.18) through the needle bearings and the outer faces of the outer rollers mating with the side faces of respective ¹⁰ guide grooves; and

a partial cylindrical face formed on each outer surface of each trunnion with each cylindrical face having a reduced diameter sized relative to the inner diameter of the inner rollers that of the outer surfaces of the trunnions and defining an axis, each cylindrical face and inclined relative to both the trunnion centerline and the trunnion axis of each associated trunnion to present and expose the cylindrical face to the

respective inner rollers to enable the inner rollers to be installed onto respective trunnions by aligning the inner rollers coaxially with the axes of the cylindrical faces
30 and guiding the inner rollers axially over the reduced diameter of the cylindrical faces into engagement with the trunnions.

2. (Currently Amended) A constant velocity joint according to claim 1, wherein:

[[a]] the diameter (d) of each partial cylindrical face provided on each outer surface of each trunnion is related to [[an]] the inner diameter (D) of each end inner face of each inner roller in accordance with the following formula:

5 $(d) < (D)$

and $5^\circ < \text{angle}(\theta)$,

wherein the angle(θ) is an angle between the trunnion centerline and a line connecting between the center of the trunnion and an edge of the partial cylindrical face with the edge of the cylindrical face being the a farthest point, an intersection line
10 being an edge line of the partial cylindrical face, the farthest point being on the outer surface of the trunnion at a location where the intersection line is farthest edge from the center of the trunnion.

3. (Currently Amended) A constant velocity joint, comprising:

a hollow housing having an open end and an inner face formed with three axially extending circumferentially spaced guide grooves;

5 a tripod disposed in said housing having three circumferentially spaced trunnions extending radially outwardly along respective trunnion axes into said guide grooves, each trunnion having an outer surface that is at least partially spherical with a trunnion centerline passing through a center of each of the said trunnions wherein the said trunnion centerline is perpendicular to each of the said respective trunnion axes;

a roller assembly carried on each of said trunnions within said guide grooves
10 and supported for rotation, angular and axial movement relative to said trunnions; and

a cylindrical face formed on said outer surface of each of said trunnions having a diameter sized relative to less than a an inner diameter of said roller assembly outer surface with said cylindrical face inclined relative to both said respective trunnion axes and said respective trunnion centerlines to present and expose ~~the reduced~~ said ~~the~~ diameter of the said cylindrical face such that the said roller assembly can be inserted onto the said respective trunnion about the said inclined cylindrical face.

4. (Cancelled).

5. (Cancelled).

6. (Withdrawn) A method of installing a roller assembly of a tripod constant velocity joint on a trunnion of the joint having a part spherical outer surface and a trunnion axis, comprising:

forming a cylindrical relief area on the outer surface inclined at an angle relative to the trunnion axis; and

aligning the roller assembly angularly with the cylindrical relief area and guiding the roller assembly over the cylindrical relief area onto the trunnion.

7. (Currently Amended) A constant velocity joint according to claim 1 wherein the spherical outer surfaces ~~end portions~~ of each of the trunnions includes a contact surface area engaging the spherical inner face of the inner roller for receiving a load during rotation of the joint and wherein the cylindrical face formed on the outer surface of each trunnion ~~does not intersect~~ is spaced from the contact surface area on each trunnion.

8. (Currently Amended) The constant velocity joint of claim 3 wherein the said outer surface of each of the said trunnions includes a contact surface area engaging an inner face of the said roller assembly for receiving a load during rotation of the joint and wherein the said cylindrical face formed on the said outer surface of each trunnion ~~does not intersect~~ is spaced from said contact surface area on each trunnion.